PLANEX COMMUNICATIONS INC.

# USER'S MANUAL

English Version 1.2

## BLW-54CW3

**54Mbps Wireless Broadband Router**

# *USER'S MANUAL*

## 54Mbps Wireless Broadband Router

**BLW-54CW3**

# Foreword

## Explanation of the signals

In order to let you set up and use this product correctly, please pay attention when reading or browsing the manual as you see these signals listed below.

**Warning/ Danger**
Users should read the explanation carefully and understand it completely, otherwise users might be in danger or even be injured.

**Caution/ Be Careful**
Remind users to be careful when setting up the product and to avoid damaging the product or its system programs.

## Seeking for service or searching for an agent or a distributor

Thank you for purchasing products from Planex Communications Inc. If you have any operational problems while configuring or setting up the product, you may contact with our Customer Service Department or ask the agent or the distributor from which you bought the product for help. Moreover, during warranty, if you find any defect or breakdown of the product, you may bring the product, assembly, and its warranty card to our company or to where you bought the product to ask for repair.

**★Every product has different warranty period and contract; please refer to our company for further information or consult the agent or the distributor.**

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# Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**IMPORTANT NOTE:**

**FCC Radiation Exposure Statement:**

To maintain compliance with FCC RF exposure compliance requirements, please avoid direct contact to the transmitting antenna during transmitting.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

**FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

**CE Statement**

Hereby, PCI , declares that this device is in compliance with the essential requirement and other relevant provisions of the R&TTE Driective 1999/5/EC.

This device will be sold in the following EEA countries：Austria, Italy, Belgium, Liechtenstein, Denmark,Luxembourg, Finland, Netherlands, France, Norway, Germany, Portugal, Greece, Spain, Iceland, Sweden, Ireland,United Kingdom, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Slovakia, Poland, Slovenia Bulgaria, Romania.

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# 1 Introduction of BLW-54CW3

Thank you for purchasing BLW-54CW3 Wireless Broadband Router. This 802.11b/g wireless router is a multi-function device which provides **1) shared broadband Internet access for LAN users through 3-port switching hub, 2) WDS Bridge/Repeater function,** and **3) unique WPS button function**. Moreover, it has an external switch to switch between AP and Router function that makes BLW-54CW3 an easy-to-use broadband router. BLW-54CW3 is a multi-function device which provides **shared broadband Internet access for all LAN users, 3-Ports switching hub for 10/100 Base-T connections.**

BLW-54CW3 has embedded with IEEE802.11b/g wireless communication standard. All the PCs and network devices, including PDA, mobile phone, game console and other digital appliances, with wireless functions can surf online wirelessly through BLW-54CW3 wireless broadband router. It also has the built-in **WPS** function. All you need to do is to press a button and then you can easily setup up wireless Internet and security settings. (Only Windows XP and 2000 OS support WPS function.)

BLW-54CW3 has a built-in Web server, thus you can access its settings through Web browsers, such as IE, Netscape, Firefox, and so on. You can set up and configure the settings easily and completely, and enjoy the convenience instantly. The following chapters will introduce you the configuration steps and fantastic functions of BLW-54CW3. With all these features, BLW-54CW3 Wireless Broadband Router must be the best solution for both beginners and advanced users.

## Special Features

● **Support WPS (Wi-Fi protected setup)**

You just need to push a button to setup wireless Internet and security setting.

● **2dBi powerful antenna**

The 2dBi antenna increases the connection distance and provides steady connection for wireless LAN.

# 1. Contents of Package

After purchasing BLW-54CW3 Wireless Router from a distributor or an agency, please open the package and check that all the components listed below are included. If there is any item missing or damaged, please contact with the distributor or the agency at once.

- BLW-54CW3 Wireless Broadband Router x 1
- 2 dBi antenna x 1
- AC Adapter x 1
- UTP Cable x 1
- Quick Installation Guide x 1
- User's Manual CD-ROM
- Warranty Card x 1

If plug the AC adapter which includes in the product package into a socket with different voltage power supply, it will cause damage and that is not included in warranty.

## 2.Product Functions

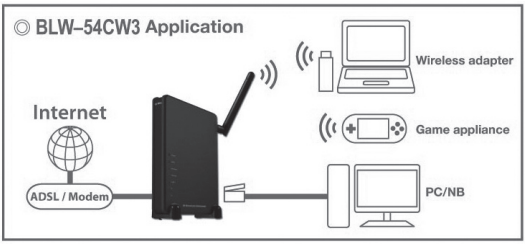
### Front Panel—LEDs

| LED | Status | Meaning |
|---|---|---|
| Power | Green/Amber | The Power LED will be Amber when starting up BLW-54CW3. After the start-up (which will take about 30 to 40 seconds), the LED will turn Green. |
| WPS | On/Off | After pressing the WPS button for over 3 seconds, the LED will be on. |
| wireless LAN | On/Off | The LED will be on while the wireless reception is fine. |
| Internet | On/Blinking | When the connection is established between BLW-54CW3 and a modem, the Internet LED will be on. And the Internet LED will be blinking when transmitting or receiving data via Internet port. |
| LAN 1/2/3 | On/Blinking | When the connection is established between BLW-54CW3 and a host, the LAN LED will be on. And the LAN LED will be blinking when transmitting or receiving data via LAN port. |

## Back Panel—Ports

| Ports | Meaning | |
|---|---|---|
| USB | Use standard LAN cables (RJ45 connectors) to connect your PCs to these ports.<br>Any LAN port can be connected with another hub, if required. | |
| Internet | Connect a DSL or Cable Modem to the Internet port and link to the Internet. If your modem came with a cable, use the supplied cable. Otherwise, use a standard LAN cable. | |
| Power | Plug the power cord into this port and the other side of the adaptor should be plugged into the socket. | |
| **Button** | **Function** | **Usage** |
| Reset | Reset to default | Press the button for 10 seconds, and then unplug the power cord, but do not release the Reset button and wait for 3 seconds before plugging the power cord back. Release the Reset button and BLW-54CW3 will automatically restart and back to the default settings. |
| WPS | Build wireless connection | Press the button and build a connection between BLW-54CW3 and a station (adapter). |
| AP/Router | Shift between two kinds of modes | Shift between AP and router modes by switching the switch. |

## 3. How to Set Up BLW-54CW3




**1.Unwrap the package of BLW-54CW3 Wireless Router and check if the components are intact and without missing anything.**

**2.Choose an Installation Site.**

Select a suitable place on the network to install BLW-54CW3 Wireless Router. And make sure that the Wireless Router and the DSL/Cable modem are not powered on yet.

**3.Connect LAN Cables.**

Use standard LAN cables to connect PCs to the switching hub ports on BLW-54CW3. Both 10 Base-T and 100 Base-T connections can be used simultaneously.

**4.Connect WAN Cable.**

Connect the DSL or Cable modem to the Internet port (WAN port) on BLW-54CW3.

**5.Power On.**

Power the DSL or Cable modem on. Connect the adapter with BLW-54CW3 and plug the other side of the power cord into the power socket to power on it. While detecting, the **Power** LED will be amber, and **LAN** LEDs will be blinking for a while and then the BLW-54CW3 will be ready in a short time when the **Power** LED will be green.

Plug the AC Adapter which comes with BLW-54CW3 in a different voltage power supply will cause damage on BLW-54CW3, and it is not included in warranty.

**System Requirements**

- Windows, Macintosh, or Linux-based Operating System with an installed Ethernet adapter
- Network cables. Use standard 10/100 Base-T network (UTP) cables with RJ45 connectors.
- TCP/IP protocol must be installed on all PCs.
- For Internet Access, an Internet Access account with an ISP, and either of a DSL or Cable modem (for Internet port usage)

# 2 Basic Setup & Configuration

## 1. Client's Computer Setup

The computers on your LAN need to be set up to cooperate with BLW-54CW3 Wireless Router.

Please make sure that your operating system already enabled your interface card on the host and connected to one of the LAN ports on BLW-54CW3 through Cat.5 cable. Be sure that LEDs on BLW-54CW3 are already on and the LED corresponds with the port which you connected. If you switch on BLW-54CW3 for the first time, owing to the default status, it will automatically enable the embedded DHCP server and start to distribute IP to your host. In addition, the default IP address of BLW-54CW3 is "**192.168.1.1**." If your operating system is Windows 98/2000/XP, you may be able to use command of "**ipconfig**" to inquire whether you have the correct IP address or not. If you are using Linux/Unix-Like system, you can use "**ifconfig**" to check your NIC (Network Interface Card) address. The instructions are as follows:

●**Windows98**

1.Click "**Start→Programs→MS-DOS**" or "**Start→Run…**" and type in "**command.exe**" and then press enter.
2. "**MS-DOS**" window will appear.
3.Type "**ipconfig**" after the command of "c:>" and then press enter.
4.MS-DOS will appear your NIC address in the window, please take notice of the value of "**IP Address**" and "**Default Gateway**."
5.The value of "**Default Gateway**" is the IP address of BLW-54CW3.

●**Windows2000/XP**

1.Please make sure that you do have the authority to access as an "**Administrator**" or you are already one of the "System Administrators."
2.Click "**Start→Programs→Accessories→Command Prompt**" or "**Start→Run**…," and then type in "cmd.exe" and press enter.
3.It will appear a "**MS-DOS**" window.
4.Type "**ipconfig**" after the command of "c:>" and then press enter.
5.MS-DOS will appear your NIC address in the window, please take notice of the value of "**IP Address**" and "**Default Gateway**."
6.The value of "**Default Gateway**" is the IP address of BLW-54CW3.

●**Linux / Unix-Like**

1.At first please make sure that your NIC are already enabled and works properly.
2.And be sure you have "**root**" number or your already are one of the members of a "root" group.
3.Please type "**ifconfig**" of "**ifconfig -a**" after "#" and then press enter.
4.It will appear your present NIC address in the window, please take notice of the value of "**IP Address**" and "**Gateway**."
5.The value of "**Gateway**" is the IP address of BLW-54CW3.

If you can get "**IP Address**" and "**Gateway,**" normally, it means that you may use web browser to configure BLW-54CW3. Type your destination: "http://192.168.1.1" (default IP Address of BLW-54CW3) on the Address Bar in the web browser. If you have changed the default IP Address of BLW-54CW3, please type in the new address on the address bar.

## 2. Web Configuration

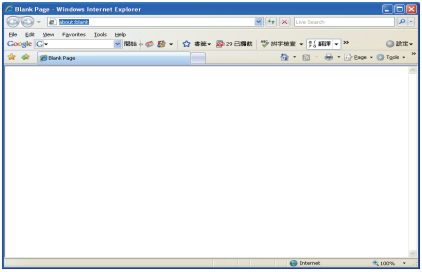
The BLW-54CW3 Wireless Router contains an HTTP server. This enables you to connect the router, and configure it by using your web browser. Before attempting to configure BLW-54CW3 Wireless Router, please ensure that your PC can establish a physical connection to the Wireless Router. The PC and the BLW-54CW3 Wireless Router must be directly connected with each other (using the LAN ports on BLW-54CW3) or on the same LAN segment. Besides, the BLW-54CW3 Wireless Router must be set up and powered on.

The BLW-54CW3 Wireless Router's default IP Address is **"192.168.1.1."** If the IP address has already used by another device, the other device must be turned OFF until BLW-54CW3 is allocated a new IP Address.

## Using Web Browser

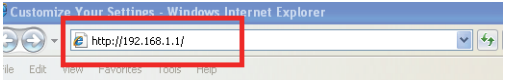
To establish a connection between your PC and the BLW-54CW3 Wireless Router:

1.Start the WEB browser.



2

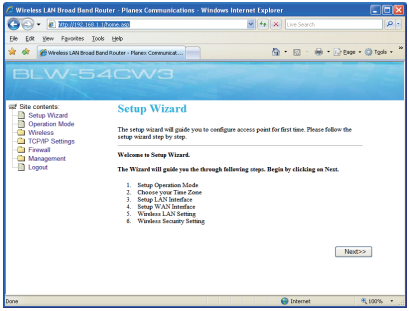
2.In the Address box, enter "http://192.168.1.1" which is the default IP Address of the BLW-54CW3 Wireless Router. Press "**Enter**" on your keyboard, and the pop-up will ask you to enter the **User Name** and **Password** to get into the program.




3.Enter the default User Name "**admin**" and Password "**0000**" and then click "**OK**" to enter the system. You can also put a check in the "**Remember my password**" check box, and next time you do not need to enter password to enter the system.

Connect to 192.168.1.1
The server 192.168.1.1 at Wireless Access Point requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
User name:
admin
Password:
Remember my password
OK
Cancel

4.After entering the system, BLW-54CW3 will show you the homepage. During configuration, you can use the tabs on the top of the page to navigate. Besides, it is necessary that, after configuring, you should click "**Apply**" to enable the settings you've made.


Wireless LAN Broad Band Router - Planex Communications - Windows Internet Explorer
BLW-54CW3
Site contents:
Setup Wizard
Operation Mode
Wireless
TCP/IP Settings
Firewall
Management
Logout
Setup Wizard
The setup wizard will guide you to configure access point for first time. Please follow the setup wizard step by step.
Welcome to Setup Wizard.
The Wizard will guide you the through following steps. Begin by clicking on Next.
1. Setup Operation Mode
2. Choose your Time Zone
3. Setup LAN Interface
4. Setup WAN Interface
5. Wireless LAN Setting
6. Wireless Security Setting
Next>>
Done
Internet
100%

If your BLW-54CW3 Wireless Router does not response, and you cannot enter the
web configuration page, please follow the steps below to check if there is any problem:

1.Make sure that BLW-54CW3 Wireless Router is properly installed and powered on, and LAN connection is O.K. You can test the connection by using "**Ping**" command:

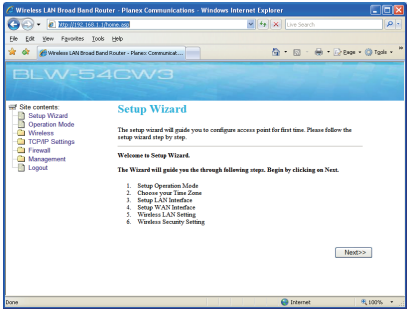
- Open MS-DOS window or click "**Start→Run⋯**" on the desktop to show the command prompt window.
- Enter the command: **ping 192.168.1.1**
- If it shows the message of "**Request time out**," the problem can be either disorder of connection, or the conflict between your PC's IP address and the router's IP address.

2.If your PC uses static IP address, the IP address must between in the range of 192.168.1.2~192.168.1.254, in order not to occupy the BLW-54CW3's default IP address "**192.168.1.1**." In addition, the subnet mask must be "**255.255.255.0**." To know more details of your PC and Internet connection, please check the TCP/IP settings on your PC.

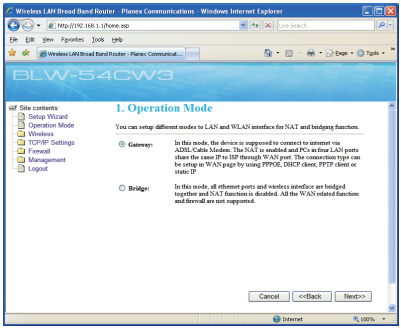
3.You have to make sure that your PC and BLW-54CW3 are on the same segment.

# 3. Setup Wizard

After you login the configuration utility, you can click **"Setup Wizard"** on the upper left of the page to start setting up BLW-54CW3. You can finish setting up the router and begin to connect Internet just through a few simple and easy steps. Please follow the instructions below to set up BLW-54CW3.


Wireless LAN Broad Band Router - Planex Communications - Windows Internet Explorer
http://192.168.1.1/home.asp
File Edit View Favorites Tools Help
Wireless LAN Broad Band Router - Planex Communicat...
BLW-54CW3
Site contents:
Setup Wizard
Operation Mode
Wireless
TCP/IP Settings
Firewall
Management
Logout
Setup Wizard
The setup wizard will guide you to configure access point for first time. Please follow the setup wizard step by step.
Welcome to Setup Wizard.
The Wizard will guide you the through following steps. Begin by clicking on Next.
1. Setup Operation Mode
2. Choose your Time Zone
3. Setup LAN Interface
4. Setup WAN Interface
5. Wireless LAN Setting
6. Wireless Security Setting
Next>>
Done
Internet
100%

# 3.1. Operation Mode

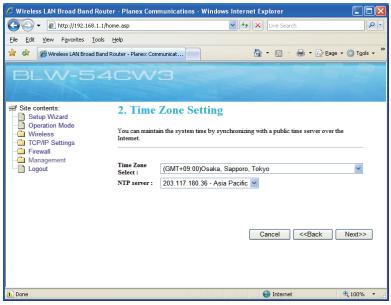

Wireless LAN Broad Band Router - Planex Communications - Windows Internet Explorer
BLW-54CW3
Site contents:
Setup Wizard
Operation Mode
Wireless
TCP/IP Settings
Firewall
Management
Logout
1. Operation Mode
You can setup different modes to LAN and WLAN interface for NAT and bridging function.
Gateway:
In this mode, the device is supposed to connect to internet via ADSL/Cable Modem. The NAT is enabled and PCs in four LAN ports share the same IP to ISP through WAN port. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client or static IP.
Bridge:
In this mode, all ethernet ports and wireless interface are bridged together and NAT function is disabled. All the WAN related function and firewall are not supported.
Cancel
<<Back
Next>>

This page shows BLW-54CW3's current modes to LAN and WLAN interface for NAT and bridging function. There are two modes that can be chosen: Gateway and Bridge. **Note: If you want to configure or change BLW-54CW3's operation mode, please do it by switching the AP/ Router switch on the rear side panel.**

- **Gateway**：In the Gateway mode, BLW-54CW3 is supposed to connect to internet via ADSL/Cable Modem. NAT is enabled and PCs in four LAN ports share the same IP to ISP through WAN port. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client or static IP.
- **Bridge**：In the Bridge mode, all Ethernet ports and wireless interface are bridged together and NAT function is disabled. All the WAN related function and firewall are not supported.
- **Cancel**：If you want to leave the Setup Wizard, please click this button.
- **Back**：Go back to the previous configuration page.
- **Next**：Proceed to the next configuration page.

## 3.2. Time Zone Setting

You can set the system time according to the time zone where you locate now.




●**Time Zone Select**：Scroll the list to choose the time zone for BLW-54CW3.

●**NTP Server**：You can configure the Internet address of an NTP (Network Time Protocol) Server for your system to synchronize with.

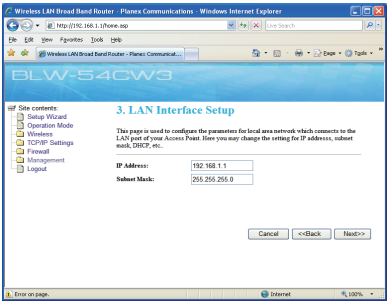
●**Cancel**：If you do not want to configure this setting right now, click this button to exist this page.

●**Back**：Go back to the previous configuration page.

●**Next**：Proceed to the next configuration page.

## 3.3. LAN Interface Setup

You can configure your LAN (Local Area Network) settings on this page.




●**IP address**：Here is the IP address of the LAN side of BLW-54CW3. It is usually the default gateway of the client's PC. The default IP address is **"192.168.1.1"**.

●**Subnet Mask**：The Subnet Mask of the LAN side of BLW-54CW3 is **"255.255.255.0"**.

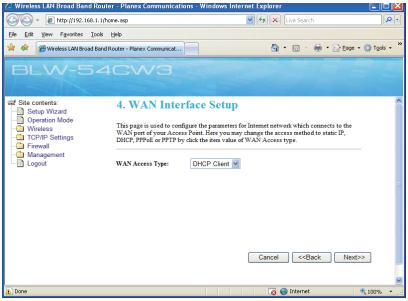
●**Cancel**：If you do not want to configure this setting right now, click this button to exist this page.

●**Back**：Go back to the previous configuration page.

●**Next**：Proceed to the next configuration page.

## 3.4. WAN Interface Setup

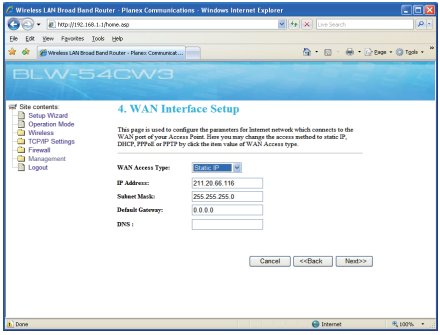
In the WAN Interface Setup, BLW-54CW3 Wireless Router provides many kinds of access. You can configure the WAN side according to the real environment. Here you may change the access method to Static IP, DHCP, PPPoE or PPTP by click the item value of WAN Access type.


Wireless LAN Broad Band Router - Planex Communications - Windows Internet Explorer
BLW-54CW3
Site contents:
Setup Wizard
Operation Mode
Wireless
TCP/IP Settings
Firewall
Management
Logout
4. WAN Interface Setup
This page is used to configure the parameters for Internet network which connects to the WAN port of your Access Point. Here you may change the access method to static IP, DHCP, PPPoE or PPTP by click the item value of WAN Access type.
WAN Access Type:
DHCP Client
Cancel
<<Back
Next>>

Scroll down the list to choose your WAN Access Type accordingly.

## 3.4.1. Static IP Address

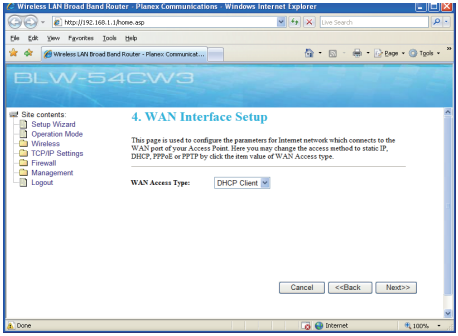
If you do not need to make a dial-up connection, and your ISP provides you a static IP address, please choose **"Static IP Address"**.




- **IP address**：Enter the IP address provided by your ISP.
- **Subnet Mask**：Enter the Subnet Mask address provided by your ISP.
- **Default Gateway**：Enter the Default Gateway address provided by your ISP.
- **DNS address**：Enter the DNS IP address provided by your ISP.
- **Cancel**：If you do not want to configure this setting right now, click this button to exist this page.
- **Back**：Go back to the previous configuration page.
- **Next**：Proceed to the next configuration page.

## 3.4.2. DHCP Client

If you use cable modem, you may choose this entry and use the wizard to configure. Scroll down to **"DHCP"** to proceed.


Wireless LAN Broad Band Router - Planex Communications - Windows Internet Explorer
http://192.168.1.1/home.asp
File Edit View Favorites Tools Help
Wireless LAN Broad Band Router - Planex Communicat...
BLW-54CW3
Site contents:
Setup Wizard
Operation Mode
Wireless
TCP/IP Settings
Firewall
Management
Logout
4. WAN Interface Setup
This page is used to configure the parameters for Internet network which connects to the WAN port of your Access Point. Here you may change the access method to static IP, DHCP, PPPoE or PPTP by click the item value of WAN Access type.
WAN Access Type:
DHCP Client
Cancel
<<Back
Next>>
Done
Internet
100%

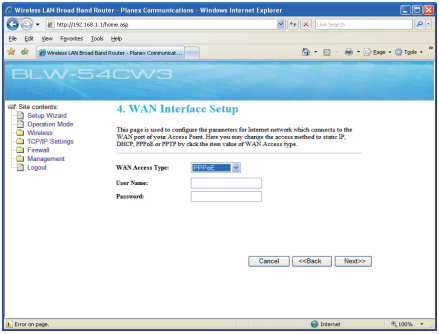
●**Cancel**：If you do not want to configure this setting right now, click this button to exist this page.

●**Back**：Go back to the previous configuration page.

●**Next**：Proceed to the next configuration page.

## 3.4.3. PPPoE

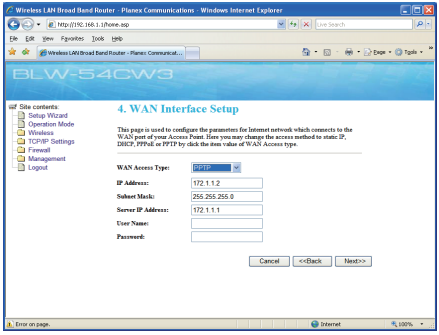
If you use PPPoE, you may choose this entry and use the wizard to configure. Scroll down to **"PPPoE"** to proceed.


Wireless LAN Broad Band Router - Planex Communications - Windows Internet Explorer
http://192.168.1.1/home.asp
File Edit View Favorites Tools Help
BLW-54CW3
Site contents:
Setup Wizard
Operation Mode
Wireless
TCP/IP Settings
Firewall
Management
Logout
4. WAN Interface Setup
This page is used to configure the parameters for Internet network which connects to the WAN port of your Access Point. Here you may change the access method to static IP, DHCP, PPPoE or PPTP by click the item value of WAN Access type.
WAN Access Type:
PPPoE
User Name:
Password:
Cancel
<<Back
Next>>
Error on page.
Internet
100%

- **USER Name**：Enter the User Name provided by your ISP. (The ID must be alphanumeric characters and case sensitive.)
- **Password**：Enter the Password provided by your ISP. (The password must be alphanumeric characters and case sensitive.)
- **Cancel**：If you do not want to configure this setting right now, click this button to exist this page.
- **Back**：Go back to the previous configuration page.
- **Next**：Proceed to the next configuration page.

### 3.4.4. PPTP

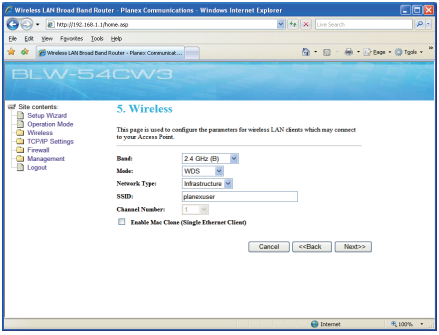
Point-to-Point Tunneling Protocol (PPTP), a protocol that allows corporations to extend their own corporate network through private "tunnels" over the public Internet. Effectively, a corporation uses a wide-area network as a single large local area network. A company no longer needs to lease its own lines for wide-area communication but can securely use the public networks. This kind of interconnection is known as a virtual private network (VPN).




- **IP Address**：Enter the IP address provided by your ISP.
- **Subnet Mask**：Enter the Subnet Mask address provided by your ISP.
- **Server IP Address**：Please enter the VPN Server IP and its Name.
- **USER Name**：Enter the User Name provided by your ISP. (The ID must be alphanumeric characters and case sensitive.)
- **Password**：Enter the Password provided by your ISP. (The password must be alphanumeric characters and case sensitive.)
- **Cancel**：If you do not want to configure this setting right now, click this button to exist this page.
- **Back**：Go back to the previous configuration page.
- **Next**：Proceed to the next configuration page.

## 3.5. Wireless

This page includes some of the fundamental and basic parameters for those wireless LAN clients connecting to the BLW-54CW3.




●**Band**：Scroll down the list to choose a band width. There are 3 kinds of band width: 2.4 GHz (B), 2.4 GHz (G), and 2.4 GHz (B+G).

●**Mode**：Scroll down the list to choose an access mode. There are 3 kinds of modes: AP (Access point), WDS (Wireless Distribution System), and AP+WDS.

●**Network Type**：This scroll-down menu will only activate when you choose **"WDS"** mode on the Mode scroll-down menu. Scroll down the list to choose a network type. There are 2 kinds of network type: Infrastructure and Ad hoc.

●**SSID**：Every SSID is unique in the WLAN (SSID can be 16-digitASCII characters and case-sensitive). SSID can prevent two nearby WLAN from combining to be one. You can give BLW-54CW3 an SSID, and only whose SSID is the same with it can connect with it. The default SSID is **"planexuser". Note: When entering your SSID, please don't use special characters such as "@", "#", "$", "%", "^", "&", "*", "(", and ")". Using special characters or symbols could cause wireless connection difficulties.**

●**Enable Mac Clone**：Click the check box to enable Mac address clone function.

●**Channel**：Here shows the channels provided by the local wireless connection. The setting of the channels of the wireless network should be the same as the wireless APs, or you can choose **"Auto"** for auto detection.

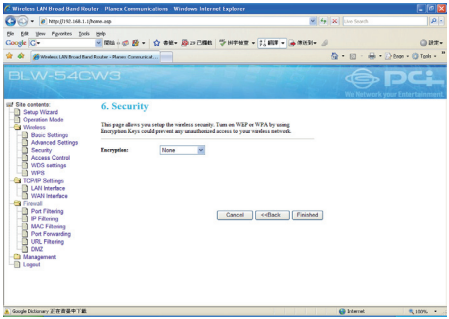
●**Cancel**：If you do not want to configure this setting right now, click this button to exist this page.

●**Back**：Go back to the previous configuration page.

●**Next**： Proceed to the next configuration page.

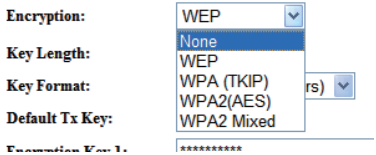
## 3.6. Security

On this page, you can configure and enable security functions for wireless connection. Enable WEP or WPA functions could prevent any unauthorized access to your wireless network. Selecting different method can make different levels of security.




Please fellow these steps for your wireless network security configurations.

1.Scroll down the “Encryption” list, and choose the encryption that you would like to apply to your network security according to the real environment.



2.If WEP (**Wired Equivalent Privacy**) is chosen as the encryption setting for your wireless network, these options will be provided. Please configure your WEP encryption accordingly.

- **Key Length/Format**: Here you can choose the length of your authentication key as 64-bit or 128-bit, and Key Format as ASCII or Hex.
  1. If you choose "64-bit" as your Key Length and "ASCII" as your Key Format, please enter 5 characters or numbers as your Tx Key. If you choose "Hex" as your key Format, please enter 10 characters or numbers as your Tx Key.
  2. If you choose "128-bit" as your Key Length and "ASCII" as your Key Format, please enter 13 characters or numbers as your Tx Key. If you choose "Hex" as your key Format, please enter 26 characters or numbers as your Tx Key.
- **Key Format**：You can choose the format for your Encryption key here.
- **Default Tx Key**：You can enter four Encryption keys and select one of them as default Tx key. Then the router can receive any packets encrypted by one of the four keys. Only the key you select it in the "**Default Tx key**" will take effect.
- **Encryption Key 1~4**: Only the Key select in the Default Tx Key will be used for wireless transmission encryption.

3.If WPA (TKIP), WPA2 (AES) or WPA2 Mixed is chosen as the encryption setting for your wireless network, these options will be provided. Please configure your encryption accordingly.

- **Pre-shared Key Format**：Only those who are sharing the same key with the AP can connect with it. Here you can choose either **Passphrase or Hex (64characters)**. A passphrase is a string of characters longer than the usual password (which is typically from four to 16 characters long) that is used in creating a digital signature (an encoded signature that proves to someone that it was really you who sent a message) or in an encryption or a decryption of a message.
- **PSK**：Enter your Passphrase or Hex (64 characters) here.

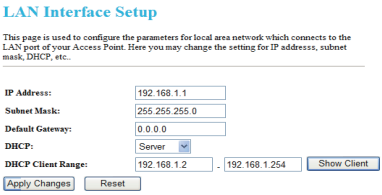
4.Click the **"Finished"** button to save your settings. BLW-54CW3 will reboot and apply the new settings afterward.

# 4. TCP/IP Settings

This page allows you to configure settings regarding to parameters both for local area network or Internet network.

## 4.1. LAN Interface Setup

This page is used to configure the parameters for local area network which connects to the LAN port of your Access Point. Here you may change the setting for IP address, subnet mask, DHCP and so on.




- **IP Address**: Here is the IP address of the LAN side of BLW-54CW3. It is usually the default gateway of the client's PC. The default IP address is **"192.168.1.1". Note: If you change the default IP Address of BLW-54CW3, remember to change the IP Address accordingly when log on to the BLW-54CW3 Web Configuration.**
- **Subnet Mask**: The Subnet Mask of the LAN side of BLW-54CW3 is **"255.255.255.0"**. by default.
- **Default Gateway**: Enter the Gateway address provided by your ISP.
- **DHCP**: Scroll down the menu to choose either you would like BLW-54CW3 to be a DHCP **Server** or a DHCP **Client**, or you can choose "Disable" to disable the DHCP function.
  - **Server**: Choose to enable the built-in DHCP server mode, BLW-54CW3 will automatically distribute IP addresses to the devices which send request to it.

◆**Client**:Choose to enable DHCP Client mode. BLW-54CW3 will automatically obtain IP address from DHCP server.

◆**Disable**: Choose to disable the DHCP function.

●**DHCP Client Range**: Please enter the first and the last IP addresses which BLW-54CW3 distributes IP addresses to. The IP addresses in this range can get assigned IP addresses from BLW-54CW3. (However, all the PCs on the same LAN should use the same subnet mask.)

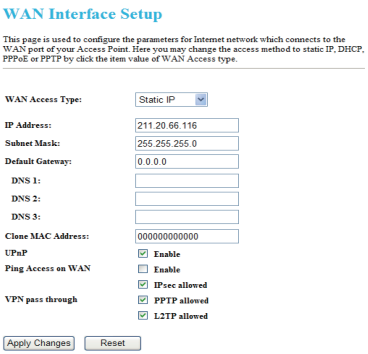
●**Show Client**:Click this button to show all the assigned IP Addresses, MAC addresses and time expired for each and every leased client.

●**Apply Changes**:Click this button to save the settings and restart the router.

●**Reset**:If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.

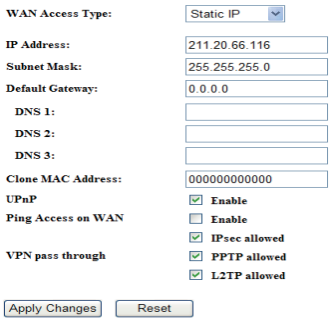
## 4.2. WAN Interface Setup

This page is used to configure the parameters for Internet network which connects to the WAN port of your Access Point. Here you may change the access method to static IP, DHCP, PPPoE or PPTP by click the item value of WAN Access type.




BLW-54CW3 Wireless Router provides many kinds of access. Scroll down the **"WAN Access Type"** menu and choose your WAN access type. You can choose from **"Static IP"**, **"DHCP"**, **"PPPoE"** or **"PPTP"**.

## 4.2.1. Static IP




●**IP address**：Enter the IP address provided by your ISP.

●**Subnet Mask**：Enter the Subnet Mask address provided by your ISP.

●**Default Gateway**：Enter the Default Gateway address provided by your ISP.

●**DNS 1/2/3**：Enter the DNS IP address provided by your ISP.

●**Clone MAC Address**：The default MAC address of BLW-54CW3 is the Network Interface Card's (NIC) MAC address on the WAN side. If you were asked to use the NIC provided by the ISP, enter the MAC Address provided by your ISP.

●**UPnP**：Click the check box to enable the UPnP function for your Windows system.

●**Ping Access on WAN**：Ping is a common and useful tool to know the connection status of a specified remote network device, but some malicious intruder will try to fill your network bandwidth with a lot of PING request data packet, to make your internet connection become very slow, even unusable. Check this box and the router will reply all inbound PING request, and when you activate this function, not only you but all the users will be able to ping your router from Internet.

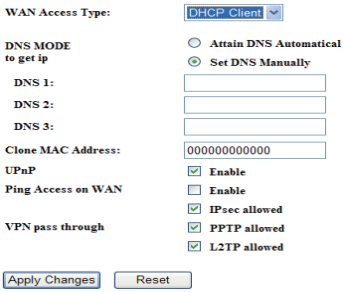
◆**Enable**：Click the check box to enable Ping Access on WAN function.

●**VPN pass through**：The VPN (Virtual Private Network) technology utilizes security schemes such as data capsulation and encoding to allow its user to use the Internet as if it is a WAN directly connected via a leased line. BLW-54CW3 supports three IPsec, PPTP and L2TP. You can choose any protocols that you want to apply by clicking the check box.

●**Apply Changes**：Click this button to save the settings and restart the router.

●**Reset**：If there is anything wrong with the settings you made, you can click **"reset"** to configure the page again.

## 4.2.2. DHCP Client




●**DNS Mode to get IP**：You can either choose to "**Attain DNS Automatically**" or "**Set DNS Manually**" for obtaining IP addresses.

●**DNS 1/2/3**： Enter the DNS IP address provided by your ISP.

●**Clone Mac Address**：The default MAC address of BLW-54CW3 is the Network Interface Card's (NIC) MAC address on the WAN side. If you were asked to use the NIC provided by the ISP, enter the MAC Address provided by your ISP.

●**UPnP**：Click the check box to enable the UPnP function for your Windows system.

●**Ping Access on WAN**：Ping is a common and useful tool to know the connection status of a specified remote network device, but some malicious intruder will try to fill your network bandwidth with a lot of PING request data packet, to make your internet connection become very slow, even unusable. Check this box and the router will reply all inbound PING request, and when you activate this function, not only you but all the users will be able to ping your router from Internet.

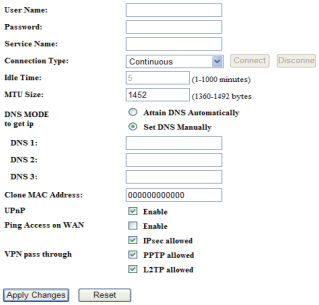
◆**Enable**：Click the check box to enable Ping Access on WAN function.

●**VPN pass through**：The VPN (Virtual Private Network) technology

utilizes security schemes such as data capsulation and encoding to allow its user to use the Internet as if it is a WAN directly connected via a leased line. BLW-54CW3 supports three protocols: IPsec,PPTP and L2TP. You can choose any protocols that you want to apply by clicking the check box.

- **Apply Changes**：Click this button to save the settings and restart the router.
- **Reset**：If there is anything wrong with the settings you made, you can click **"reset"** to configure the page again.

## 4.2.3. PPPoE




●**USER Name**：Enter the User Name provided by your ISP. (The ID must be alphanumeric characters and case sensitive.)

●**Password**：Enter the Password provided by your ISP. (The password must be alphanumeric characters and case sensitive.)

●**Connection Name**：Please enter a name for your connection.

●**Connection Type**：Scroll down the menu to choose dial-up mode.

●Continuous：BLW-54CW3 will maintain the connection without disconnect.

◆**Connect on Demand**：BLW-54CW3 will disconnect the connection when there is no activity for a period of time and set the Idle Time in the field down below.

◆**Manual**：You will have to make your connection to the Internet manually.

◆**Idle Time**：Idle Time means a period of idle time before you go offline. Enter a maximum period of time (minute) to define the maximum idle time. If the silent time is above the defined maximum idle time, it will go offline immediately.

●**MTU Size**：MTU means Maximum Transmission Unit, the largest physical packet size, measured in bytes, that a network can transmit. The default value is 1452. Please set up the MTU according to your system environment. Only enter a new MTU when your ISP requires, otherwise, please leave it as the default setting. When using PPPoE connection, you may need to change MTU settings to maintain the connection with your ISP, however, if the incorrect value was entered, you may be unable to access certain websites. Reducing the packet size can help connecting to certain websites or speeding up the transmission rate.

●**DNS Mode to get IP**：You can either choose to "Attain DNS Automatically" or "Set DNS Manually" for obtaining IP addresses.

●**DNS 1/2/3**： Enter the DNS IP address provided by your ISP.

●**Clone Mac Address**：The default MAC address of BLW-54CW3 is the Network Interface Card's (NIC) MAC address on the WAN side. If you were asked to use the NIC provided by the ISP, enter the MAC Address provided by your ISP.

●**UPnP**：Click the check box to enable the UPnP function for your Windows system.

●**Ping Access on WAN**：Ping is a common and useful tool to know the connection status of a specified remote network device, but some malicious intruder will try to fill your network bandwidth with a lot of PING request data packet, to make your internet connection become very slow, even unusable. Check this box and the router will reply all inbound PING request, and when you activate this function, not only you but all the users will be able to ping your router from Internet.

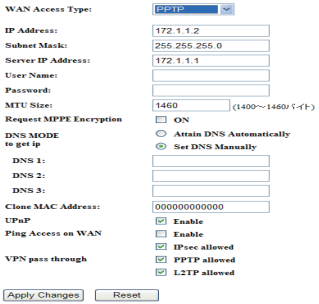
◆**Enable**：Click the check box to enable Ping Access on WAN function.

●**VPN pass through**：The VPN (Virtual Private Network) technology utilizes security schemes such as data capsulation and encoding to allow its user to use the Internet as if it is a WAN directly connected via a leased line. BLW-54CW3 supports three protocols: IPsec,**PPTP** and

**L2TP**. You can chose any protocols that you want to apply by clicking the check box.

- **Apply Changes**：Click this button to save the settings and restart the router.
- **Reset**：If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.

## 4.2.4. PPTP




●**IP Address**：Enter the IP address provided by your ISP.

●**Subnet Mask**：Enter the Subnet Mask address provided by your ISP.

●**Server IP Address**：Please enter the VPN Server IP and its Name.

●**USER Name**：Enter the User Name provided by your ISP. (The ID must be alphanumeric characters and case sensitive.)

●**Password**：Enter the Password provided by your ISP. (The password must be alphanumeric characters and case sensitive.)

●**MTU Size**: MTU means Maximum Transmission Unit, the largest physical packet size, measured in bytes, that a network can transmit. The default value is 1452. Please set up the MTU according to your system environment. Only enter a new MTU when your ISP requires, otherwise, please leave it as the default setting. When using PPPoE connection, you may need to change MTU settings to maintain the connection with your ISP, however, if the incorrect value was entered, you may be unable to access certain websites. Reducing the packet size can help connecting to certain websites or speeding up the transmission rate.

- **Request MPPE** Encryption: MPPE stands for "Microsoft Point-to-Point Encryption", **it's an encryption that can enhance** your security over PPTP connection. Click the check box to enable this function.
- **DNS Mode to get IP**：You can either choose to "Attain DNS Automatically" or "Set DNS Manually" for obtaining IP addresses.
- **DNS 1/2/3**：Enter the DNS IP address provided by your ISP.
- **Clone Mac Address**：The default MAC address of BLW-54CW3 is the Network Interface Card's (NIC) MAC address on the WAN side. If you were asked to use the NIC provided by the ISP, enter the MAC Address provided by your ISP.
- **UPnP**：Click the check box to enable the UPnP function for your Windows system.
- **Ping Access on WAN**：Ping is a common and useful tool to know the connection status of a specified remote network device, but some malicious intruder will try to fill your network bandwidth with a lot of PING request data packet, to make your internet connection become very slow, even unusable. Check this box and the router will reply all inbound PING request, and when you activate this function, not only you but all the users will be able to ping your router from Internet.
  - **Enable**：Click the check box to enable Ping Access on WAN function.
- **VPN pass through**：The VPN (Virtual Private Network) technology utilizes security schemes such as data capsulation and encoding to allow its user to use the Internet as if it is a WAN directly connected via a leased line. BLW-54CW3 supports three protocols: IPsec,**PPTP** and **L2TP.** You can choose any protocols that you want to apply by clicking the check box.
- **Apply Changes**：Click this button to save the settings and restart the router.
- **Reset**：If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.

# 5. Management

You can configure many basic configurations through Management functions, such as

- Status
- Statistics
- Remote Management
- DDNS
- Time Zone Setting
- Denial-of-Service
- Log
- Upgrade Firmware
- Save/Reload Settings
- Password

## 5.1. Status

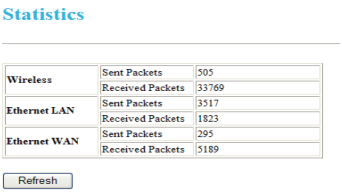
This page shows the general current system status.

**Access Point Status**

| | |
|---|---|
| **System** | |
| **Uptime** | 0day:0h:58m:53s |
| **Firmware Version** | **v11.4.3.4e_b1** |
| **Wireless Lan** | |
| **Mode** | AP+WDS |
| **Band** | 802.11g |
| **SSID** | planexuser |
| **Channel Number** | 11 |
| **Encryption** | Disabled(AP), Disabled(WDS) |
| **BSSID** | 00:90:cc:ed:0c:63 |
| **Associated Clients** | 0 |
| **LAN TCP/IP** | |
| **Attain IP Protocol** | Fixed IP |
| **IP Address** | 192.168.1.1 |
| **Subnet Mask** | 255.255.255.0 |
| **Default Gateway** | 192.168.1.1 |
| **DHCP Server** | On |
| **MAC Address** | 00:90:cc:ed:0c:63 |
| **WAN TCP/IP** | |
| **Attain IP Protocol** | Fixed IP |
| **IP Address** | 0.0.0.0 |
| **Subnet Mask** | 0.0.0.0 |
| **Default Gateway** | 0.0.0.0 |
| **MAC Address** | 00:90:cc:ed:0c:64 |

## 5.2. Statistics

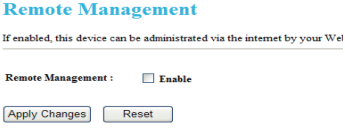
This page shows the packets that were sent or received through Wireless Network, Ethernet LAN, and Ethernet WAN




●**Refresh**：Click this button to update to the latest status.

## 5.3. Remote Management

BLW-54CW3 Wireless Router can be managed by any PC from your LAN. If the router has connected to the Internet, the administrator can also configure it via the Internet.




●**Remote Management**：Click the Check box to enable the Remote Management function.

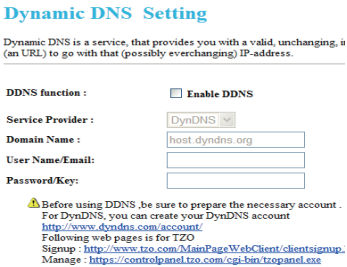
●**Apply Changes**：Click this button to save the settings and restart the router.

●**Reset**：If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.

## 5.4. DDNS

Dynamic DNS can let you connect with one or more DDNS services to update your current dynamic IP address. To make a WEB server publicly accessible on the Internet, a static global IP address needs to be assigned to BLW-54CW3. Even when there is an always-on connection, however, disconnection does occur and the IP address may dynamically change after reconnection. When Dynamic DNS is enabled, the IP address of the product is reported to a Dynamic DNS server at regular intervals so that it can use the same static host name even after IP has changed.

BLW-54CW3 supports www.dyndns.org and www.tzo.com Dynamic DNS services. www.dyndns.org and www.tzo.com are free services. Before enabling DDNS configuration on the product, be sure to access either of the former websites and register your user name, password, host name, and so on.

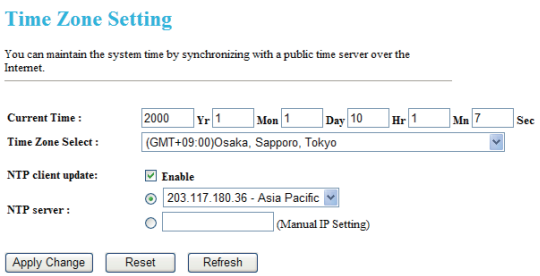

Dynamic DNS Setting
Dynamic DNS is a service, that provides you with a valid, unchanging, i
(an URL) to go with that (possibly everchanging) IP-address.
DDNS function :
Enable DDNS
Service Provider :
DynDNS
Domain Name :
host.dyndns.org
User Name/Email:
Password/Key:
Before using DDNS ,be sure to prepare the necessary account .
For DynDNS, you can create your DynDNS account
http://www.dyndns.com/account/
Following web pages is for TZO
Signup : http://www.tzo.com/MainPageWebClient/clientsignup.
Manage : https://controlpanel.tzo.com/cgi-bin/tzopanel.exe

- **DDNS Function**：Click the check box to enable DDNS function.
- **Service Provider**：Scroll down to choose the DDNS Service Provider you registered under.
- **Domain Name**：Select the Domain Name which you registered.
- **User Name/Email**：Enter the User Name /Email you provided while registering for DDNS services.
- **Password/Key**：Enter the Password/Key you provided while registering for DDNS services.

- **Apply Changes**：Click this button to save the settings and restart the router.
- **Reset**：If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.

## 5.5. Time Zone Setting

You can set the system date and time according to the time zone where you locate now.


Time Zone Setting
You can maintain the system time by synchronizing with a public time server over the Internet.
Current Time :
2000 Yr 1 Mon 1 Day 10 Hr 1 Mn 7 Sec
Time Zone Select :
(GMT+09:00)Osaka, Sapporo, Tokyo
NTP client update:
Enable
NTP server :
203.117.180.36 - Asia Pacific
(Manual IP Setting)
Apply Change
Reset
Refresh

●**Current Time**：You may change the current time of the system here.

●**Time Zone Select**：Scroll the list to choose the time zone for BLW-54CW3.

●**NTP Client Update**：Click the check box to enable the Network Time Protocol function.

●**NTP Server**：You may scroll down the menu and select a NTP server, or input the NTP server IP Manually.

●**Apply Changes**：Click this button to save the settings and restart the router.

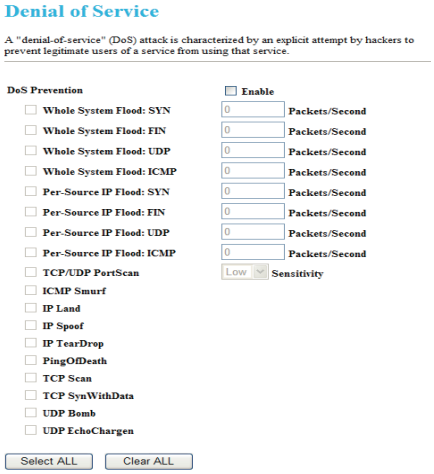
●**Reset**：If there is anything wrong with the settings you made, you can click **"reset"** to configure the page again.

●**Refresh**：Click this button to update to the latest date and time.

## 5.6. Denial-of-Service

A **DoS (Denial of Service)** attack does not attempt to steal data or damage your PCs, but overloads your Internet connections and paralyzes the service. If Anti-DoS function is enabled, DoS attack will be detected and blocked. The default status is disabled. It is recommended that you should use the function to block all the possible DoS attacks.

You can click the check box to enable the Anti-DoS and choose the items which you need to use. Too many Anti-DoS functions are enabled can also affect the efficiency of the Internet connection via BLW-54CW3. We suggest you to set the appropriate amount of Anti-DoS functions according to your real needs as to meet the balance between the efficiency and the security.



●**DoS Protection**: Click the check box to enable DoS Protection.

●**Select All**: Click this button to select all the DoS type.

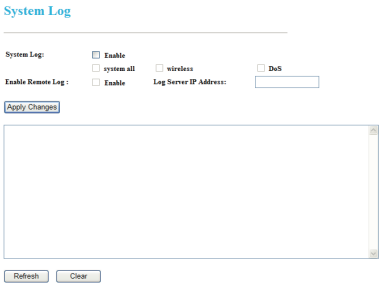
●**Clear All**: Click this button to unselect all.

●**Enable Source IP Blocking**: Click this check box to enable Source IP Blocking function.

●**Apply Changes**：Click this button to save the settings and restart the router.

## 5.7. Log

Log records every events happened on the BLW-54CW3 Wireless Router. These data are useful for troubleshooting, but enabling all logs will generate a large amount of data and affect the performance.




●**System Log**: Click this check box to enable the System Log function. You could choose to record everything happened in your system by clicking **"system all"**, record things only happened on your wireless network by clicking **"wireless"**, or just record any DoS attacks by clicking **"DoS"**.

●**Enable Remote Log**: Click the check box to enable Remote Log function. Please enter the IP address that you would like to record in the field.

●**Apply Changes**：Click this button to save the settings and restart the router.

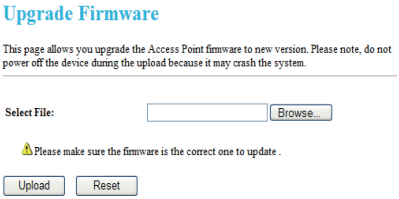
●**Refresh**: Click this button to update to the latest system status.

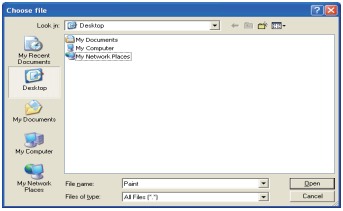
●**Clear**: Clear all the information displaying on the field.

## 5.8. Up Grade Firmware

You can upgrade the firmware of BLW-54CW3 via Web Browser.
First, please go to the website: http://www.planex.net/support/index.htm to download the latest firmware of BLW-54CW3. Be sure that the firmware is stored in your PC's disk and then click **"Browse…"** to search for the firmware file which you just downloaded. Click **"Open"** to use the firmware and click **"Apply."** After the dialog box pops up and ask you if you want to continue upgrading the firmware, you can click **"OK"** to start upgrading immediately. Upgrading firmware will not change any settings, but it is recommended that you should save the settings before upgrading the firmware.

It takes about 2~3 minutes to upgrade the firmware. When upgrading, please do not turn off the power of BLW-54CW3. After finishing upgrading, BLW-54CW3 will restart automatically.


Upgrade Firmware
This page allows you upgrade the Access Point firmware to new version. Please note, do not power off the device during the upload because it may crash the system.
Select File:
Browse...
Please make sure the firmware is the correct one to update .
Upload
Reset




## Upgrade Firmware

This page allows you upgrade the Access Point firmware to new version. Please note, do not power off the device during the upload because it may crash the system.

**Select File:** C:\Documents and Setting Browse...

Please make sure the firmware is the correct one to update .

Upload Reset

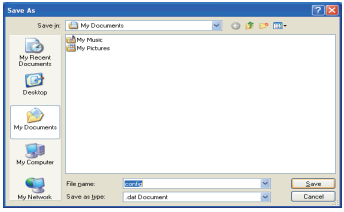
Please wait...

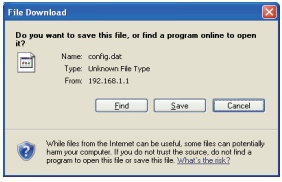
## 5.9. Save/Reload Settings

Before upgrading, you can use this function to save current system settings or upload the previous settings after upgrading the firmware.

**●Save Settings to file**

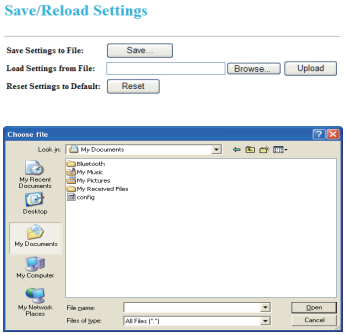
You may click **"Save Settings to file"** button to save current system settings to your local disk. (The format will be **"*.dat"** file)





File Download
Do you want to save this file, or find a program online to open it?
Name: config.dat
Type: Unknown File Type
From: 192.168.1.1
Find
Save
Cancel
While files from the Internet can be useful, some files can potentially harm your computer. If you do not trust the source, do not find a program to open this file or save this file. What's the risk?

**●Load Settings**

Make sure the saved system setting file is in the local host disk and then click **"Browse…"** to search for the saved system setting file. Click **"Open"** to select the system setting file that you want and then click **"Load Settings from file"** to start restore the settings.

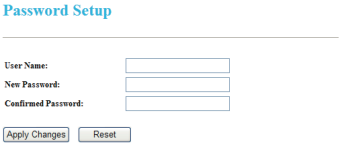



●**Reset Settings to Default**：Click the **"Reset"** button to have all the settings reset to factory default value.

## 5.10. Password

You can change your password here in this page. For your system's security, it is recommended that you change your password as soon as you log on to the BLW-54CW3 configuration webpage for the first time.

You can also create new accounts here on this page, as well.




- **User Name**：Please enter the user name here. (The User Name must be alphanumeric characters and case sensitive.)
- **New Password**：Enter the Password (The password must be alphanumeric characters and case sensitive.)
- **Confirm Password**：Enter the password again for verification.
- **Apply Changes**：Click this button to save the settings and restart the router.
- **Reset**：If there is anything wrong with the settings you made, you can click **"reset"** to configure the page again.

## 6. Logout

You can logout of the BLW-54CW3 configuration webpage here.

●**Apply Changes**：Click this button to logout.

# 3 Advanced Setup & Configuration

## 1.Wireless

Here you can configure and set up your wireless environment base on your real environment.

- Basic Settings
- Advance Settings
- Security
- Access Control
- WDS Settings
- WPS

### 1.1. Basic Settings

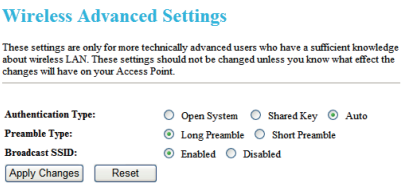
This page is used to configure the parameters for wireless LAN clients that may connect to your Access Point. Here you may change wireless encryption settings as well as wireless network parameters.

- **Wireless LAN**：Click this check box to **disable** the Wireless LAN interface. No other devices will be able to connect to BLW-54CW3 through wireless connection.
- **Band**：Scroll down the list to choose a band width. There are six kinds of modes: **2.4 GHz (B), 2.4 GHz (G)**, and **2.4 GHz (B+G)**.
- **Mode**：Scroll down to choose one of the mode: AP(Standard Wireless Access Point mode), **WDS(Wireless Distribution System**, it uses wireless media to communicate with other APs, like the Ethernet does. To do this, you must set these APs in the same channel and set MAC address of other APs which you want to communicate with in the table and then enable the WDS.), and **AP+WDS** mode.
- **SSID**：Every SSID is unique in the WLAN (SSID can be 16-digitASCII characters and case-sensitive). SSID can prevent two nearby WLAN from combining to be one. You can give BLW-54CW3 an SSID, and only whose SSID is the same with it can connect with it. The default SSID is **"planexuser". Notice: When entering your SSID, please don't use special characters such as "@", "#", "$", "%", "^", "&", "*", "(", and ")". Using special characters or symbols could cause wireless connection difficulties.**
- **Channel Number**：Here shows the channels provided by the local wireless connection. The setting of the channels of the wireless network should be the same as the wireless APs.
- **Associated Clients**：Click **"Show Active Clients"** button to show the clients that are connected to BLW-54CW3 through wireless connection.
- **Apply Changes**：Click this button to save the settings and restart the router.
- **Reset**：If there is anything wrong with the settings you made, you can click **"reset"** to configure the page again.

## 1.2. Advanced Settings



These settings are only for more technically advanced users who have a sufficient knowledge about wireless LAN. These settings should not be changed unless you know what effect the changes will have on your Access Point.


Wireless Advanced Settings
These settings are only for more technically advanced users who have a sufficient knowledge about wireless LAN. These settings should not be changed unless you know what effect the changes will have on your Access Point.
Authentication Type:
Open System
Shared Key
Auto
Preamble Type:
Long Preamble
Short Preamble
Broadcast SSID:
Enabled
Disabled
Apply Changes
Reset

●**Authentication Type**：There are three kinds of authentication of BLW-54CW3 wireless Router. After selecting the authentication mode, it has to cooperate with the encryption type. The settings of authentication on the destination network must be the same with BLW-54CW3.

◆**Open System** –If enabling this mode, there is no need authentication toaccess AP or wireless NIC.

◆**Shared Key** –Only those who are sharing the same key with the AP can connect with it.

◆**Auto** –BLW-54CW3 will automatically apply the proper authentication type according to your network environment.

●**Preamble Type**：Preamble defines the length of the CRC block (Cyclic Redundancy Check is a common technique for detecting data transmission errors) for communication between the Access Point and the roaming wireless device. Long Preamble is the default setting. Note: High network traffic areas should use the shorter preamble type. You can choose “Long Preamble” or “Short Preamble”.

●**Broadcast SSID**：Enable this function so other devices can connect to BLW-54CW3 through wireless connection.

●**Apply Changes**：Click this button to save the settings and restart the router.

●**Reset**：If there is anything wrong with the settings you made, you can click **"reset"** to configure the page again.

## 1.3. Security



In this page, you can configure the security of your wireless network. Selecting different method can make different levels of security. However, no matter what kind of authentication or encryption you use to prevent data packets from being eavesdropped by people without authentication, it may cause decrease of the data throughput of the wireless connection.

**Authentication and Encryption**

There are 6 kinds of authentication of BLW-54CW3 wireless Router. After selecting the authentication mode, it has to cooperate with the encryption type. The settings of authentication on the destination network must be the same with BLW-54CW3.

**None** – If enabling this mode, there is no need authentication to access AP or wireless NIC.

**WEP** – WEP is short for Wired Equivalent Privacy, a security protocol for WLANs defined in the 802.11b standard. WEP is designed to provide the same level of security as that of a wired LAN. WEP aims to provide security by encrypting data over radio waves so that it is protected as it transmitted from one end point to another. There are two kinds of WEP encryption: 64 bit and 128 bit. 64 bit needs 10 hex characters to be the key and 128 bit needs 26 hex characters.

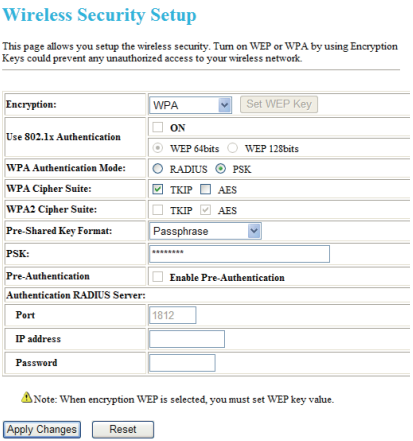
**WPA** – is short for Wi-Fi Protected Access. It was designed to improve upon the security features of WEP. The technology is designed to work with existing Wi-Fi products that have been enabled with WEP. Through the data encryption, access control and authentication, it provides better protection over data transmission. WPA uses 128-digit keys to ensure the wireless network privacy and security.

**WPA2** – is short for Wi-Fi Protected Access 2. It is the follow on security method to WPA for wireless networks that provides stronger data

protection and network access control. It provides enterprise and consumer Wi-Fi users with a high level of assurance that only authorized users can access their wireless networks. There are two versions of WPA2: WPA2-Personal, and WPA2- Enterprise. WPA2-Personal protects unauthorized network access by utilizing a set-up password. WPA2-Enterprise verifies network users through a server. WPA2 is backward compatible with WPA.

**WPA2 Mixed** – This mode allows both WPA and WPA2 coexist under the same system. While WPA2 Mixed is activated, BLW-54CW3 will broadcast the authentications that it allows, and the clients can choose their own authentication accordingly.

**RADIUS** – is short for Remote Authentication Dial-In User Service, an authentication and accounting system used by many Internet Service Providers (ISPs). RADIUS setup is used to set up additional parameters for authorizing wireless clients through RADIUS server. The RADIUS setup is required when you select to **click the check box on the "WPA Authentication Mode" and "RADIUS" field.**



●**Encryption**: Scroll down the menu and choose one of the authentications that BLW-54CW3 provides: **None, WEP, WPA, WPA2, and WPA2 Mixed**.

●**Use 802.1x Authentication**: Click the check box to enable 802.1x Authentication.

●**WPA Authentication Mode**: Here you

●**WPA Cipher Suite**: There are three kinds of encryption:

◆**TKIP** – It is short for **Temporal Key Integrity Protocol**. TKIP scrambles the key using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.

◆**AES** – Short for **Advanced Encryption Standard**, a symmetric 128-bit block data encryption technique. It works at multiple network layers simultaneously and has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.

●**WPA2 Cipher Suite**: There are three kinds of encryption:

◆**TKIP** – It is short for **Temporal Key Integrity Protocol**. TKIP scrambles the key using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.

◆**AES** – Short for **Advanced Encryption Standard**, a symmetric 128-bit block data encryption technique. It works at multiple network layers simultaneously and has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.

●**Pre-Shared Key Format**: Also named Shared Secret, which is used only when enabling WPA-PSK authentication. A passphrase is a string of characters longer than the usual password (which is typically from four to 16 characters long) that is used in creating a digital signature (an encoded signature that proves to someone that it was really you who sent a message) or in an encryption or a decryption of a message. It is

applicable only when you select WPA-PSK authentication. Scroll down the menu to choose either **"Passphrase"** or **"Hex(64 characters)"**

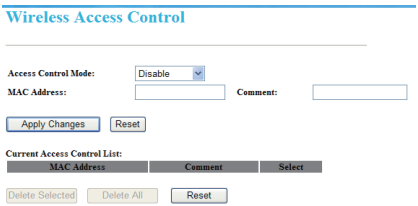
3

- **PSK** : You will need to enter an 8~64 characters password to start the encryption process.
- **Pre-Authentication** : Click the check box to enable the Pre-Authentication function.
- **Authentication RADIUS Server** :
  - **Port**: Please input the port number of your RADIUS authentication server here.
  - **IP address** : Please input the IP address of your RADIUS authentication server here.
  - **Password** : Please input the password of your RADIUS authentication server here.
- **Apply Changes** : Click this button to save the settings and restart the router.
- **Reset** : If there is anything wrong with the settings you made, you can click **"reset"** to configure the page again.

## 1.4. Access Control

This page will allow only those whose wireless MAC addresses listed on the Device List able to connect with BLW-54CW3. The default mode is that all the wireless stations are allowed to access BLW-54CW3.






●**Access Control Mode**：Scroll down to enable the Wireless Access Control function. The default value is Disable.

◆**Disable** – Choose this function to disable Wireless Access Control function. This means all the users may connect with BLW-54CW3 without limitation.

◆**Allow Listed** – Choose this function to let users only whose MAC addresses were added to the Device List can connect with BLW-54CW3and eliminate other users.

●**MAC address**：Enter the MAC address of other wireless devices here.

●**Comment**：Enter any text to describe the MAC address which you want to allow.

●**Apply Changes**：Click this button to save the settings and restart the router.

●**Reset**：If there is anything wrong with the settings you made, you can click **"reset"** to configure the page again.

●**Current Access Control List**：This table lists all the devices that are allowed to connect to BLW-54CW3.

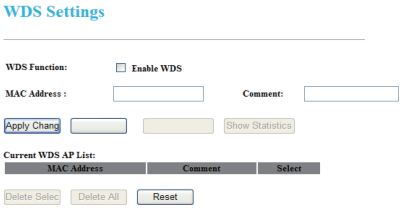
◆**Delete Selected**：Delete the device you selected from the list.

◆**Delete All**：Delete all the devices from the list.

◆**Reset**：Update and refresh all the devices on the list.

## 1.5. WDS Settings

**Wireless Distribution System** uses wireless media to communicate with other APs, like the Ethernet does. To do this, you must set these APs in the same channel and set MAC address of other APs which you want to communicate with in the table and then enable the WDS.




●WDS Function：Scroll down to enable the WDS function.

●MAC address：Enter the MAC address of other wireless devices here.

●Comment：Enter any text to describe the MAC address.

●Apply Changes：Click this button to save the settings and restart the router.

●Show Statistics：Click this button to show the statistics regarding to your WDS settings.

●Current Access Control List：This table lists all the devices that are allowed to connect to BLW-54CW3.

◆Delete Selected：Delete the device you selected from the list.

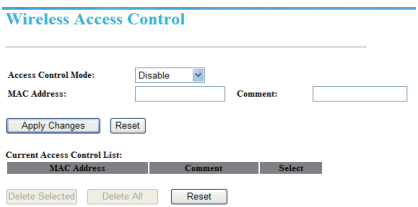
◆Delete All：Delete all the devices from the list.

◆Reset：Update and refresh all the devices on the list.

## 1.6. WPS

Use the unique WPS (Wi-Fi Protected Setup) function to insure your wireless security, and you may complete the setup of wireless configuration and encryption within a simple click on a button. However, this function only works on Windows 2000 and XP OS.






●**WPS**：Click this check box to enable the Wi-Fi Protected Setup function.

●**WPS Status**：This shows the status of the WPS is either **"Configured"** or **"UnConfigured"**.

●**Self-PIN Number**：Click the **"Regenerate PIN"** to regenerate a PIN number for your BLW-54CW3. Only devices that share the same PIN Number can be connected wirelessly.

●**Push Button Configuration**：Click the **"Start PBC"** button to start WPS configuration automatically. After you click the **"Start PBC"** button, you have to go to the WPS station side and push its WPS button **within 2 minutes**.

●**Apply Changes**：Click this button to save the settings and restart the router.

●**Reset**：If there is anything wrong with the settings you made, you can click **"reset"** to configure the page again.

●**Current Key Info**：This table shows devices that are currently connect.

●**Client PIN Number**：You can enter the WPS client PIN number here to start PBC connection as well. After clicking the **"Start PIN"** button, you have to go to the WPS station side and push its WPS button **within 2 minutes**.

※**Note**：**You can also click the button on the rear panel of BLW-54CW3 to start PBC connection as well.**

## 2. Firewall

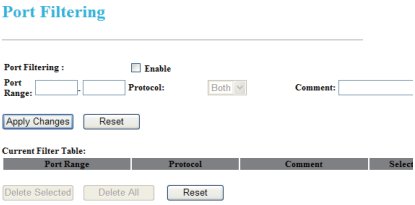
Firewall is an advanced function which can be used to allow or deny TCP/IP data packets passing through BLW-54CW3 Wireless Router. It can filter certain access to the BLW-54CW3, and you can create a detailed regulation for your network environment.

Here are the configurations that you can set up in this page:

- Port Filtering
- IP Filtering
- MAC Filtering
- Port Forwarding
- URL Filtering
- DMZ

## 2.1. Port Filtering

By filtering out some of the ports, you can restrict users accessing certain Internet applications and services (such as BBS, FTP, or Email).




- **Port Filtering**：Click this check box to activate the Port Filtering function.
- **Port Range**：Please enter the port number range
  - **Protocol**：Select your protocol type. If you are not sure whether to choose TCP or UDP protocol, choose **"Both"**.
  - **Comment**：Enter any text to describe the port range which you want to be filtered out.

●**Apply Changes**：Click this button to save the settings and restart the router.

●**Reset**：If there is anything wrong with the settings you made, you can click **"reset"** to configure the page again.

●**Current Filter Table**：This table lists all the port filtering regulations and related information.

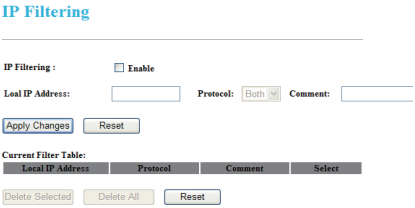
◆**Delete Selected**：Delete the device you selected from the list.

◆**Delete All**：Delete all the devices from the list.

◆**Reset**：Update and refresh new information on the list.

## 2.2. IP Filtering

You can block out IPs on your local network from accessing BLW-54CW3 by configuring this page.




●**IP Filtering**：Click this check box to activate the IP Filtering function.

●**Local IP Address**: Please enter the Local IP Address you would like to filter out.

◆**Protocol**：Select your protocol type. If you are not sure whether to choose TCP or UDP protocol, choose "**Both**".

◆**Comment**：Enter any text to describe the IP which you want to be filtered out.

●**Apply Changes**：Click this button to save the settings and restart the router.

●**Reset**：If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.

●**Current Filter Table**：This table lists all the IP filtering regulations and related information.

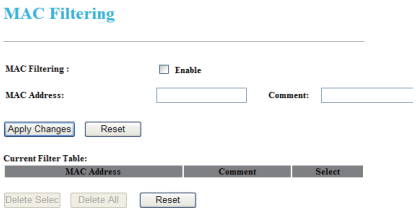
◆**Delete Selected**：Delete the IP you selected from the list.

◆**Delete All**：Delete all the IPs from the list.

◆**Reset**：Update and refresh new information on the list.

## 2.3. MAC Filtering

You can filter out specific devices with their MAC address. MAC addresses listed in the filtering table will be denied from connecting to the network.




●**MAC Filtering**：Click this check box to activate the MAC Filtering function.

●**MAC Address**：Please enter the MAC Address you would like to filter out.

◆**Comment**：Enter any text to describe the MAC which you want to be filtered out.

●**Apply Changes**：Click this button to save the settings and restart the router.

●**Reset**：If there is anything wrong with the settings you made, you can click **"reset"** to configure the page again.

●**Current Filter Table**：This table lists all the MAC filtering regulations and related information.

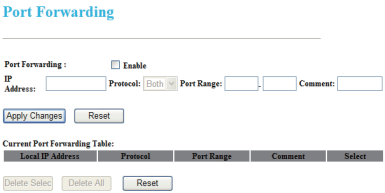
◆**Delete Selected**：Delete the MAC address you selected from the list.

◆**Delete All**：Delete all the MAC address from the list.

◆**Reset**：Update and refresh new information on the list.

## 2.4. Port Forwarding

This function allows you to redirect a single port or consecutive ports of Internet IP address to the same port of the IP address on local network. The port number(s) of Internet IP address and private IP address (the IP address on local network) must be the same.




●**Port Forwarding**：Click this check box to activate the Port Forwarding function.

●**IP Address**：Enter the IP address of the computer on local network which provides internet service.

◆**Protocol**：Select your protocol type. If you are not sure whether to choose TCP or UDP protocol, choose **"Both"**.

◆**Port Range**：Enter the starting port number in the left field, and input the ending port number in the right field. If you only want to redirect a single port number, just fill the port number in the left field.

●**Comment**：Enter any text to describe the IP which you want to be filtered out.

●**Apply Changes**：Click this button to save the settings and restart the router.

●**Reset**：If there is anything wrong with the settings you made, you can click **"reset"** to configure the page again.

●**Current Port Forwarding Table**：CThis table lists all the Port Forwarding regulations and related information.

◆**Delete Selected**：Delete the Local IP Address you selected from the list.

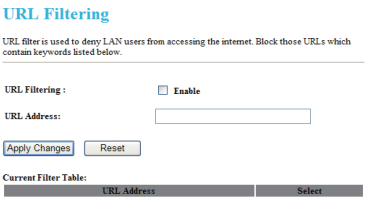
◆**Delete All**：Delete all the Local IP Addresses from the list.

◆**Reset**：Update and refresh new information on the list.

## 2.5. URL Filtering



Use URL Filtering to prevent PC users on the local network from accessing websites including the listed URL strings. You can enter some key words such as **"adult"**, **"hacker"** or other related words to prevent PCs on the LAN from connecting with these websites.




●**URL Filtering**：Click this check box to activate the URL Filtering function.

●**URL Address**：Please enter the URL or specific words contained in the URL you would like to filter out.

●**Apply Changes**：Click this button to save the settings and restart the router.

●**Reset**：If there is anything wrong with the settings you made, you can click **"reset"** to configure the page again.

●**Current Filter Table**：This table lists all the URL filtering regulations and related information.

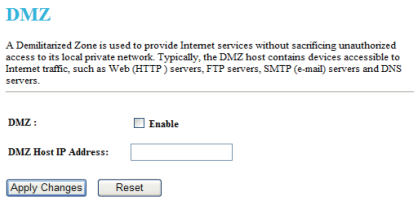
◆**Delete Selected**：Delete the URL you selected from the list.

◆**Delete All**：Delete all the URLs from the list.

◆**Reset**：Update and refresh new information on the list.

## 2.6. DMZ

A Demilitarized Zone is used to provide Internet services without sacrificing unauthorized access to its local private network. Typically, the DMZ host contains devices accessible to Internet traffic, such as Web (HTTP) servers, FTP servers, SMTP (e-mail) servers and DNS servers.


DMZ
A Demilitarized Zone is used to provide Internet services without sacrificing unauthorized access to its local private network. Typically, the DMZ host contains devices accessible to Internet traffic, such as Web (HTTP ) servers, FTP servers, SMTP (e-mail) servers and DNS servers.
DMZ :
Enable
DMZ Host IP Address:
Apply Changes
Reset

●**DMZ**：Click this check box to enable DMZ function.

●**DMZ Host IP Address**：Please enter the Host IP address that the Internet IP address will be mapped to.

●**Apply Changes**：Click this button to save the settings and restart the router.

●**Reset**：If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.